

Fig. 1

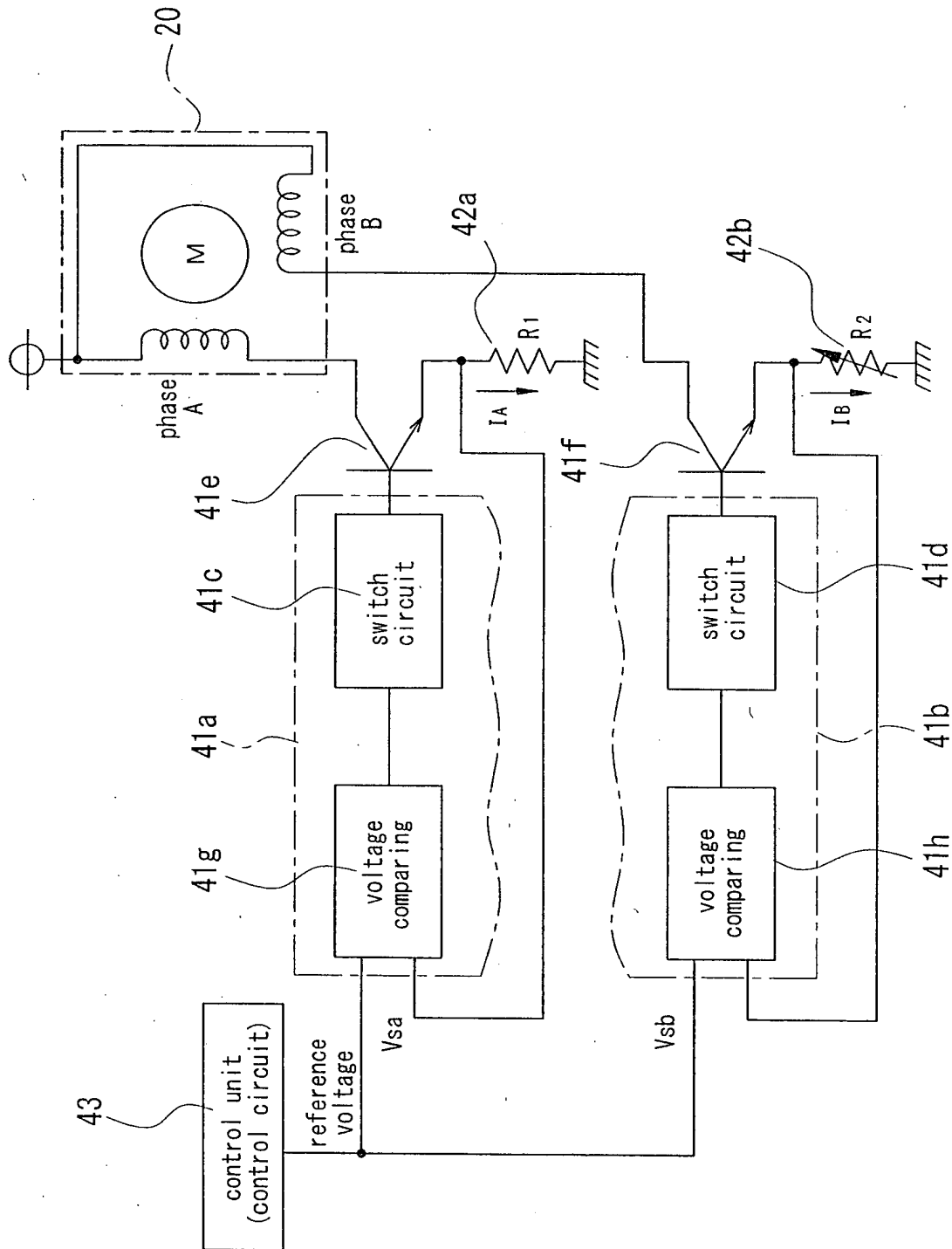


Fig. 2

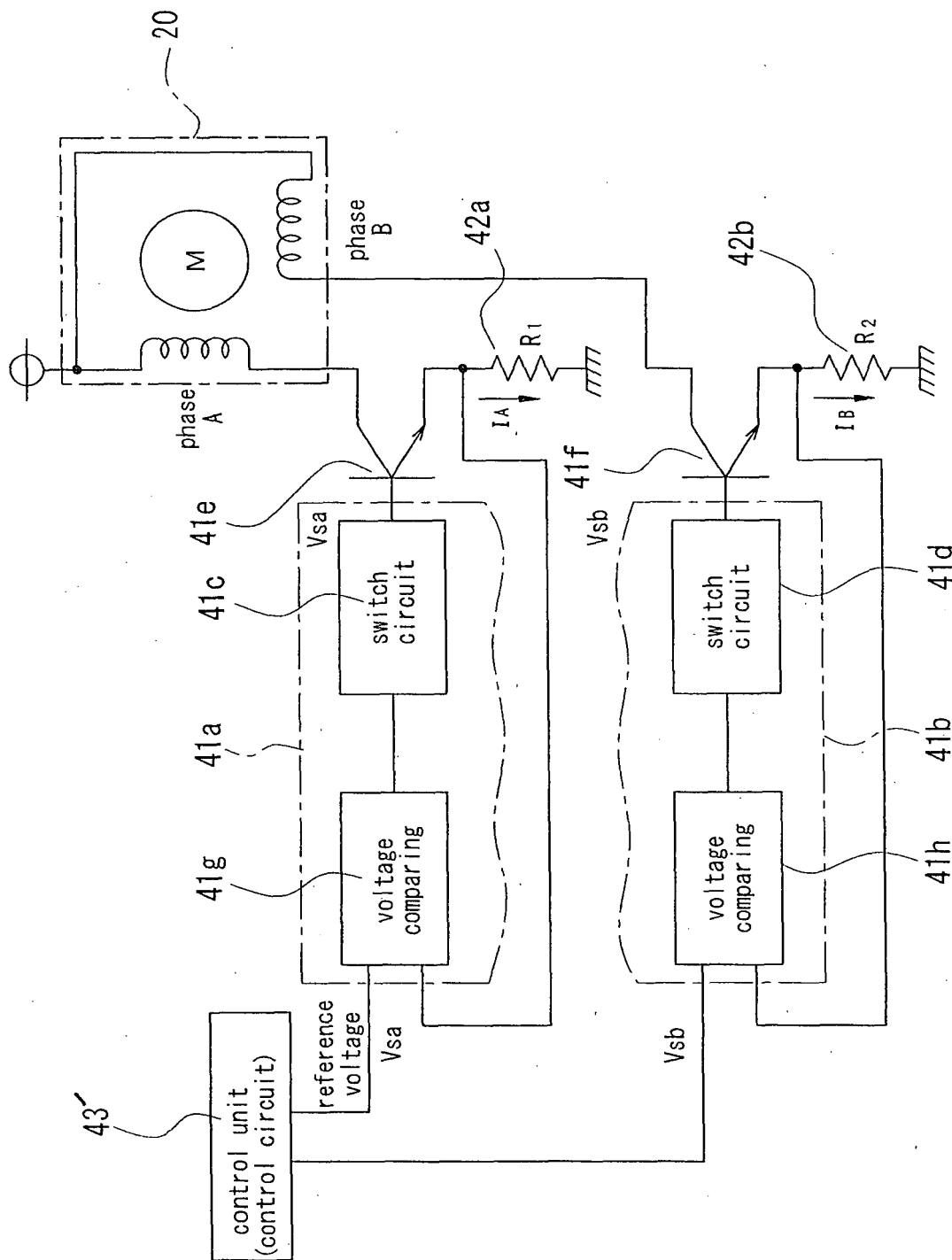


Fig. 3

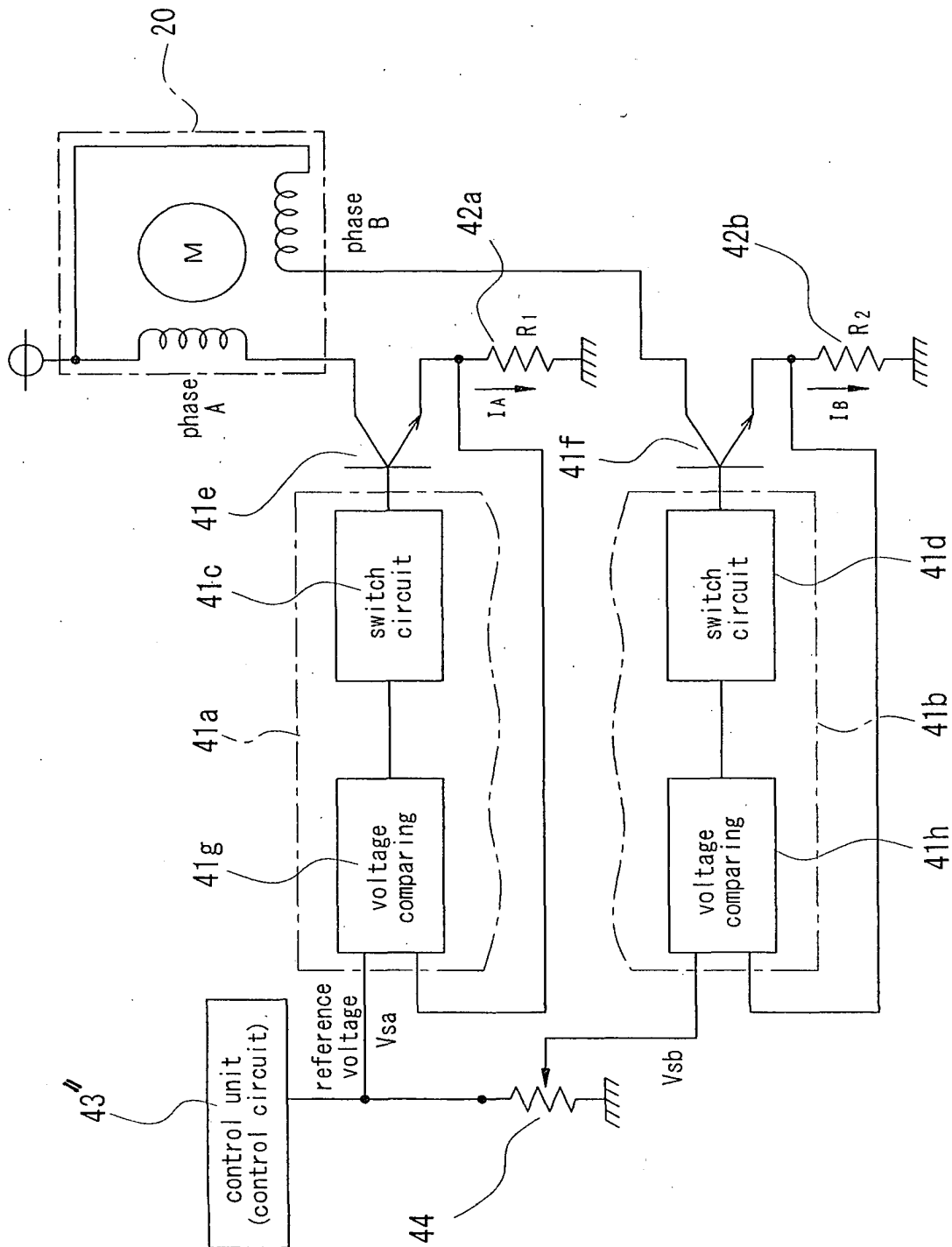


Fig. 4

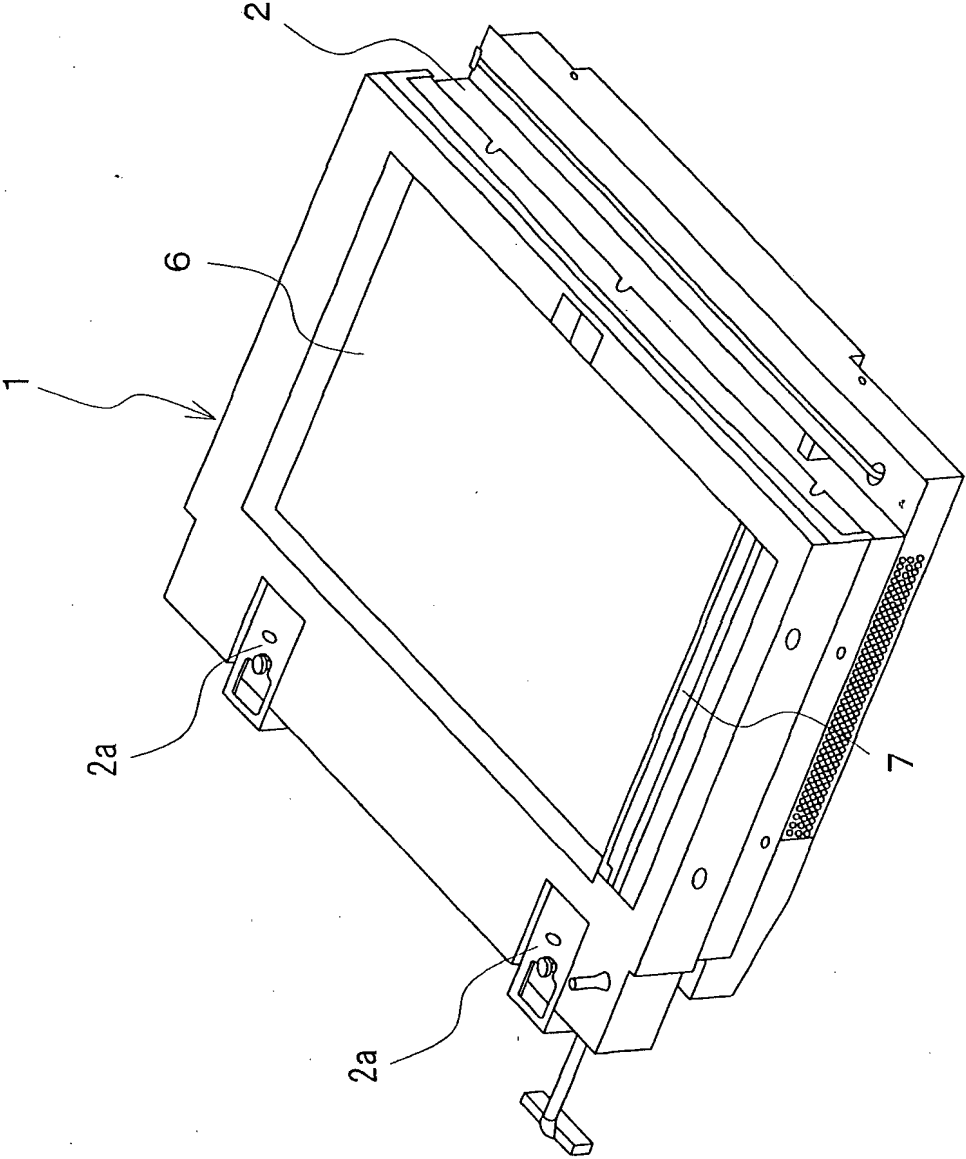


Fig. 5

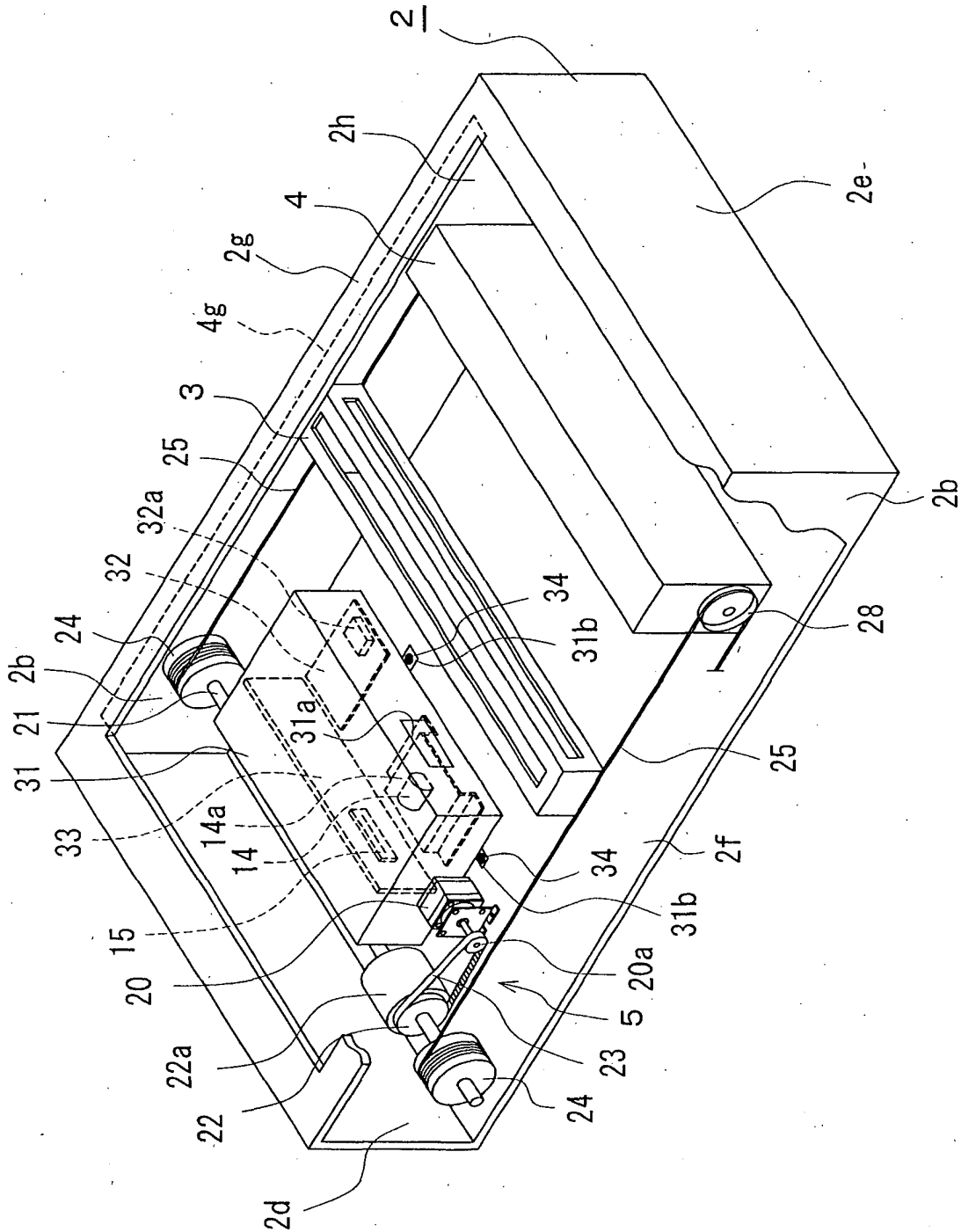


Fig. 6

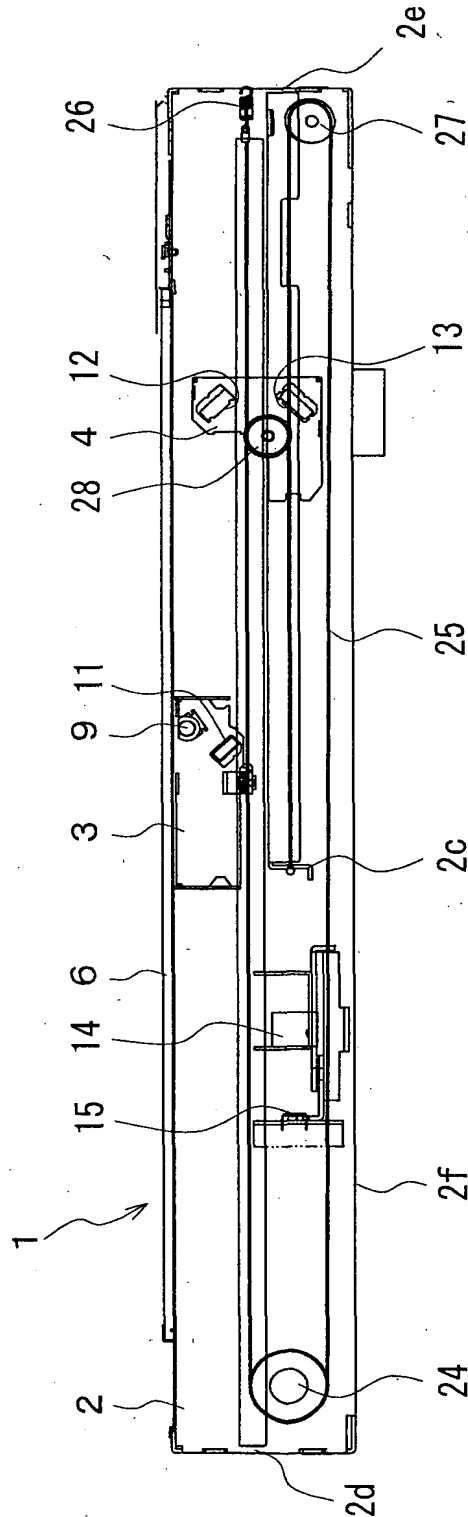


Fig. 7

copy at magnification rate of 200%

		motor			
		M4	M1	M3	M2
		wow and flutter [mV]			
control substrate	current value ratio (1-phase A/phase B) [%]	5	26	35	52
#10	11.9%	7.972	3.038	6.341	4.502
#11	6.9%	3.632	0.698	1.257	0.927
#12	4.7%	1.453	0.29	1.124	2.471
#15	0.6%	2.976	1.971	4.674	3.641
#13	-7.4%	6.748	3.779	10.496	10.968
#14	-8.7%	7.549	4.356	8.674	10.742

Fig. 8

copy at magnification rate of 400%

		motor			
		M4	M1	M3	M2
		wow and flutter [mV]			
control substrate	current value ratio (1-phase A/phase B) [%]	5	26	35	52
#10	11.9%	11.021	5.513	10.076	6.654
#11	6.9%	5.409	2.005	3.894	2.178
#12	4.7%	2.224	0.438	1.553	3.897
#15	0.6%	3.59	3.623	6.359	7.969
#13	-7.4%	12.746	9.003	16.521	19.195
#14	-8.7%	13.969	8.584	7.042	20.021

Fig. 9

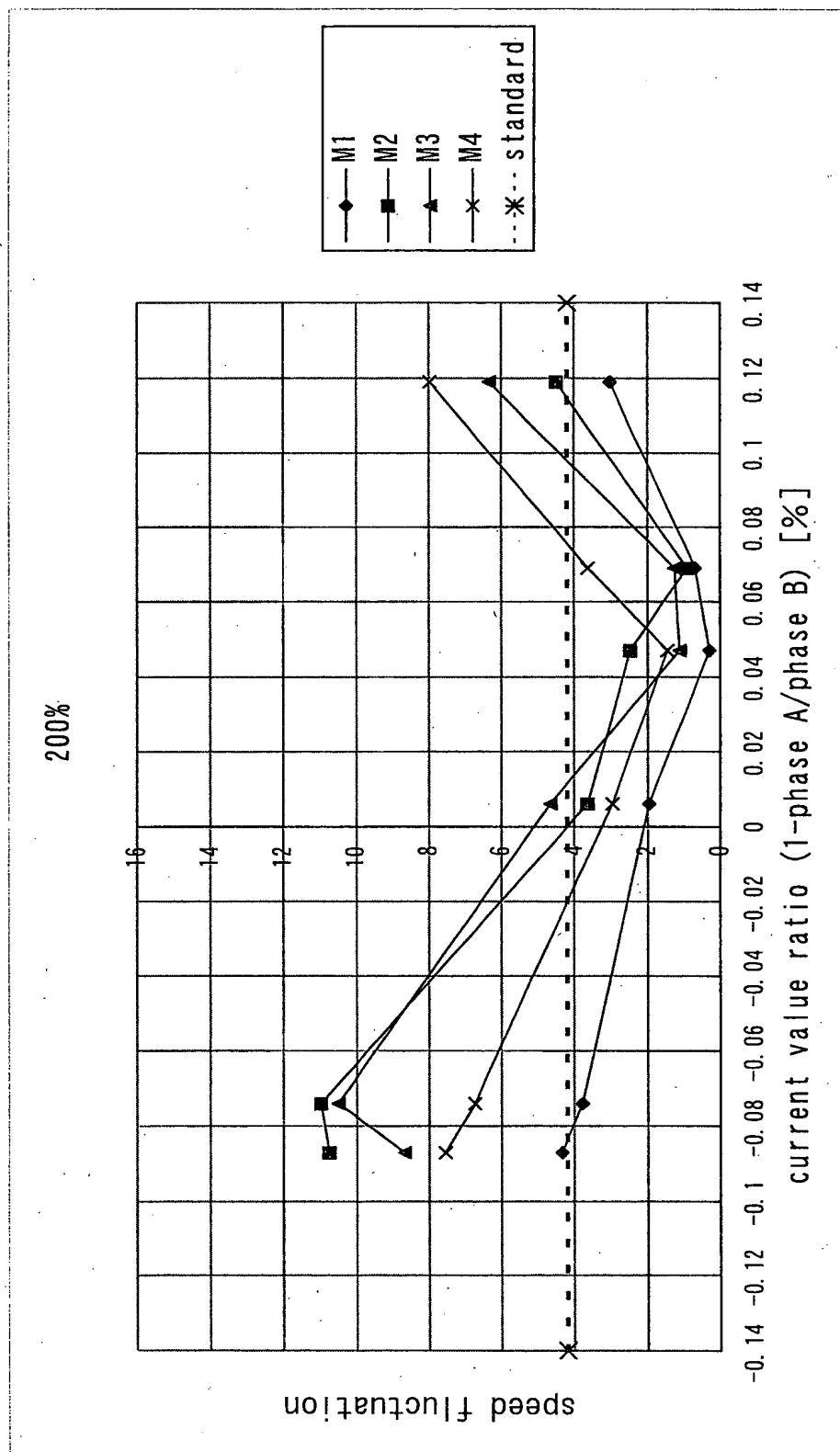


Fig. 10

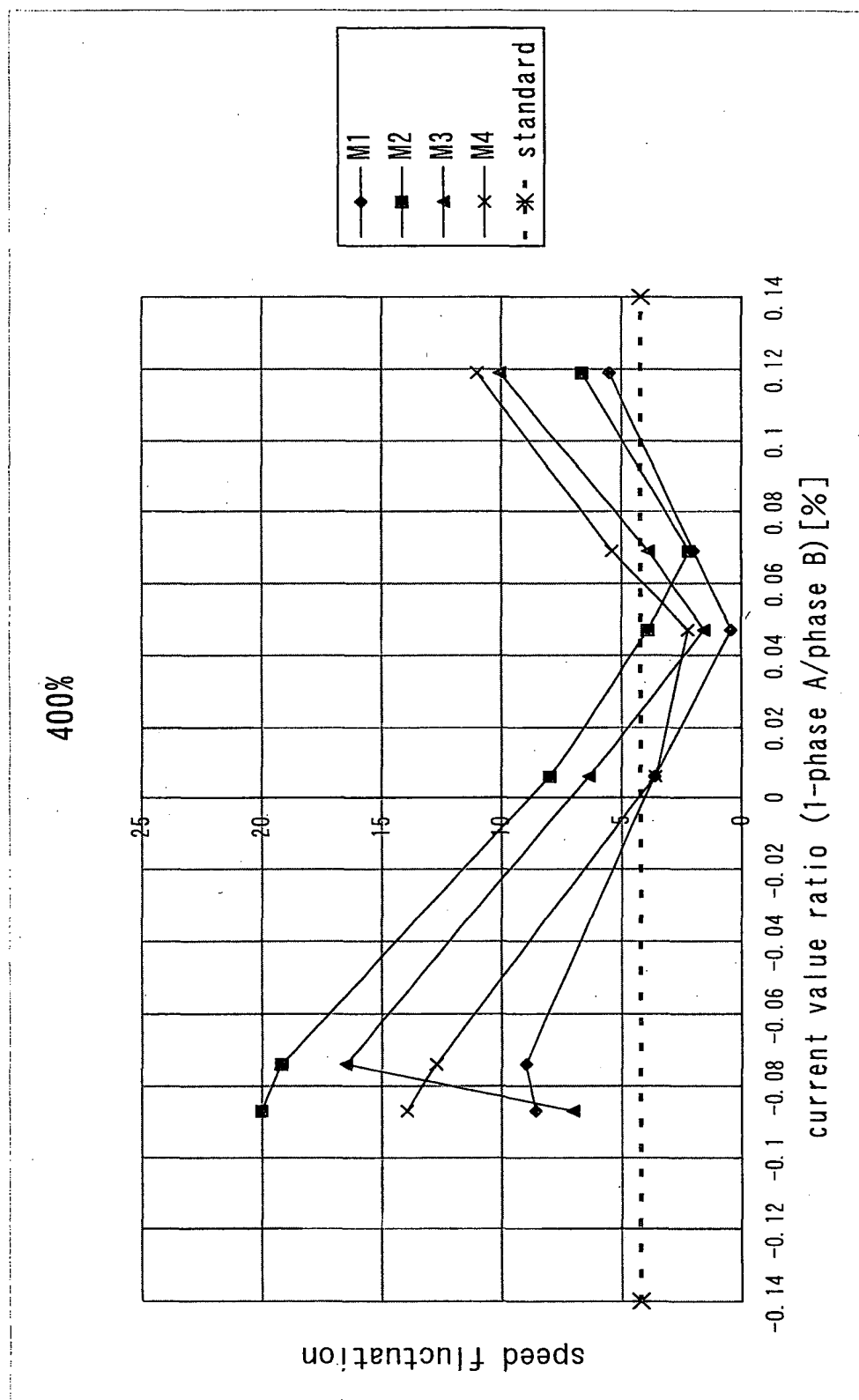


Fig. 11

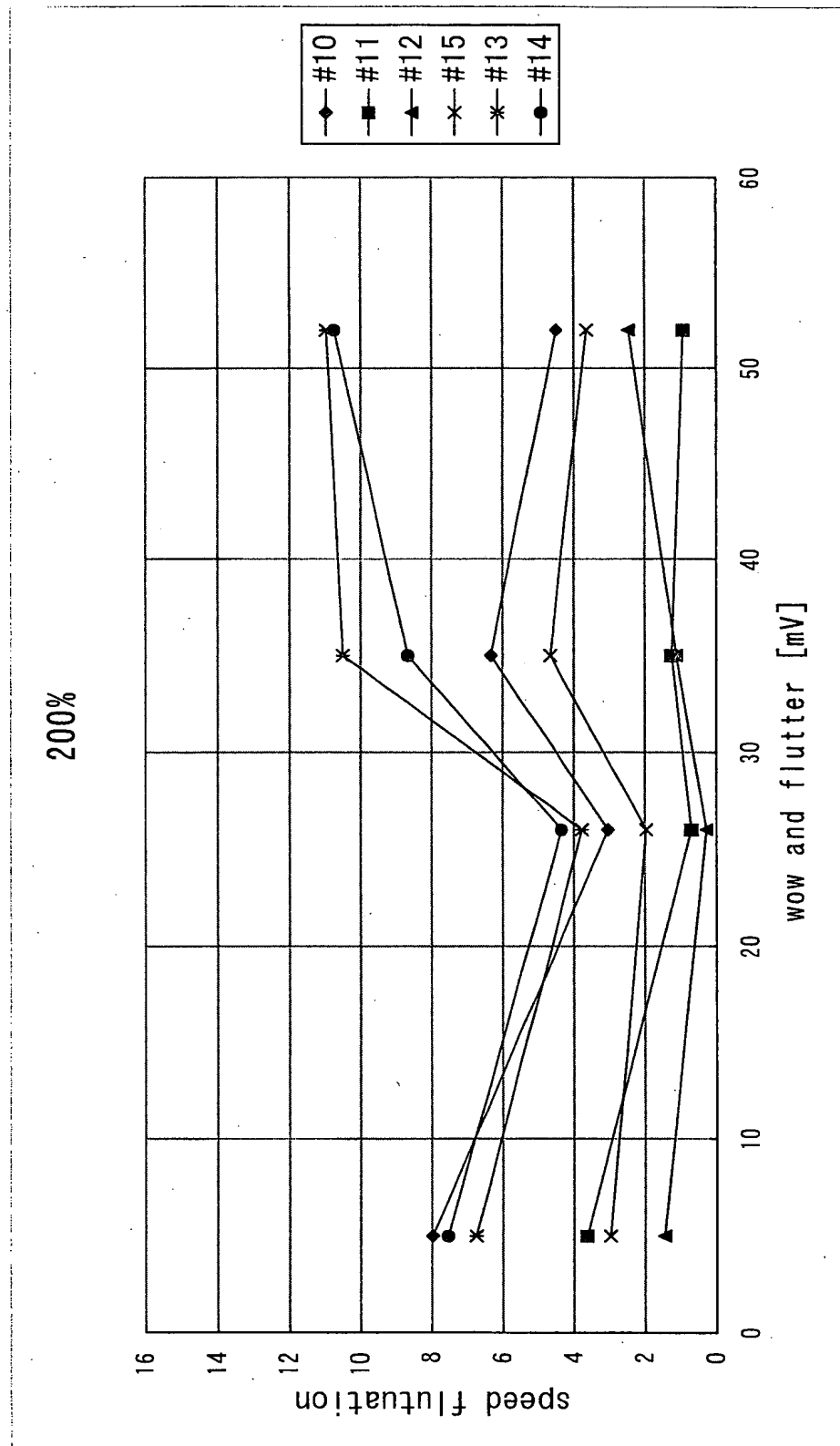


Fig. 12

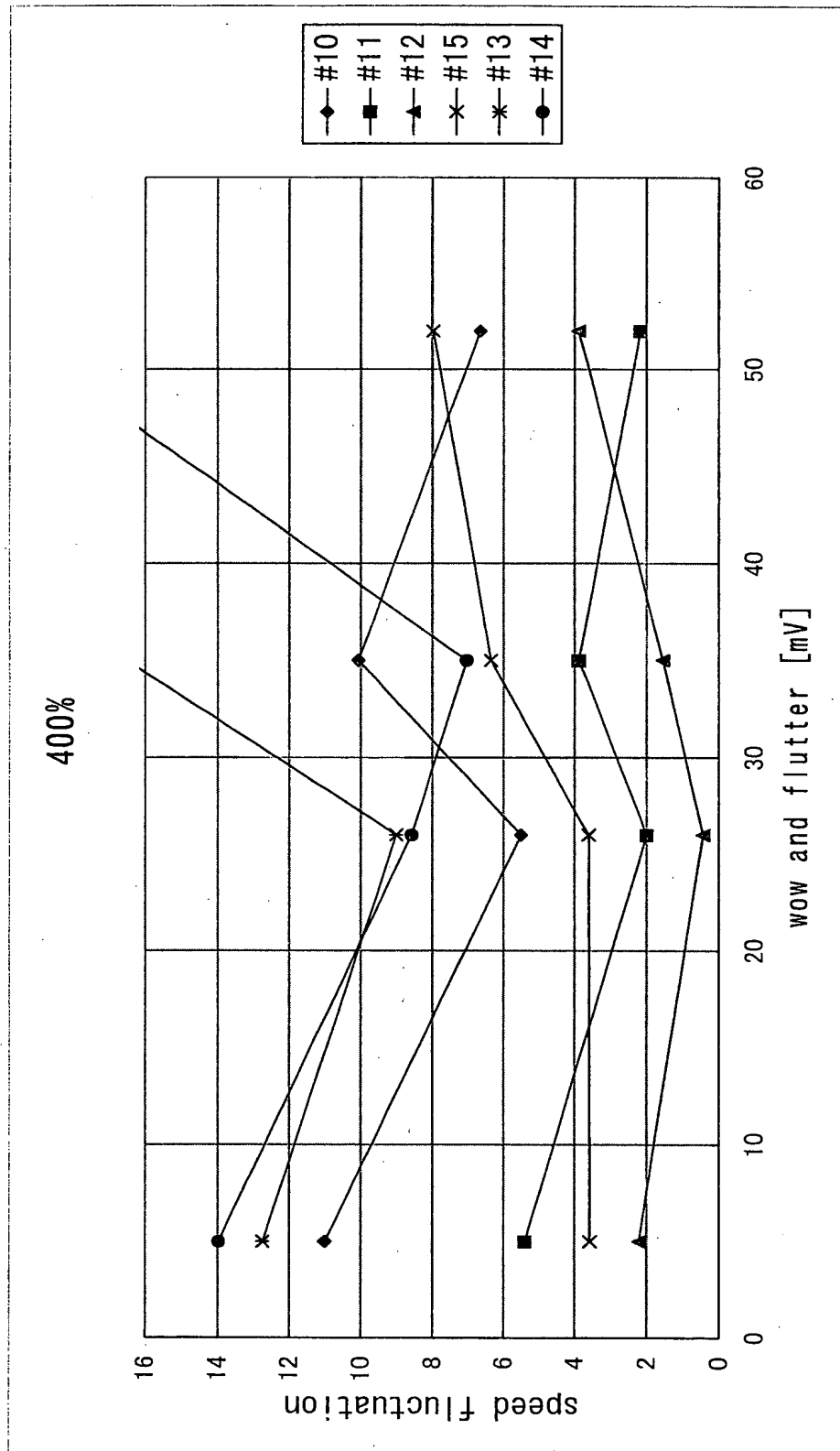


Fig. 13

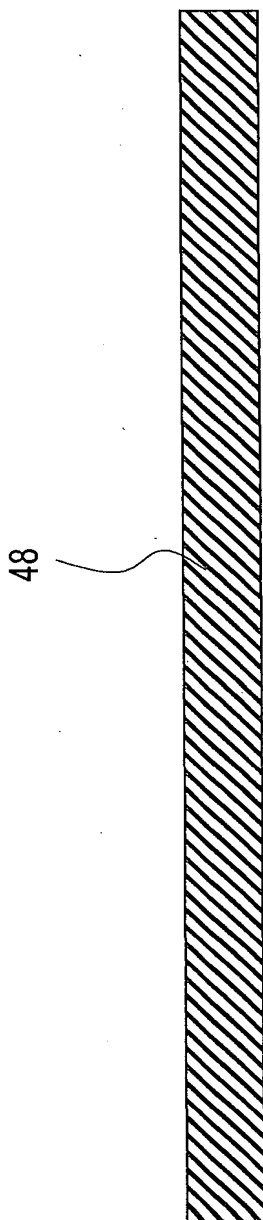


Fig. 14

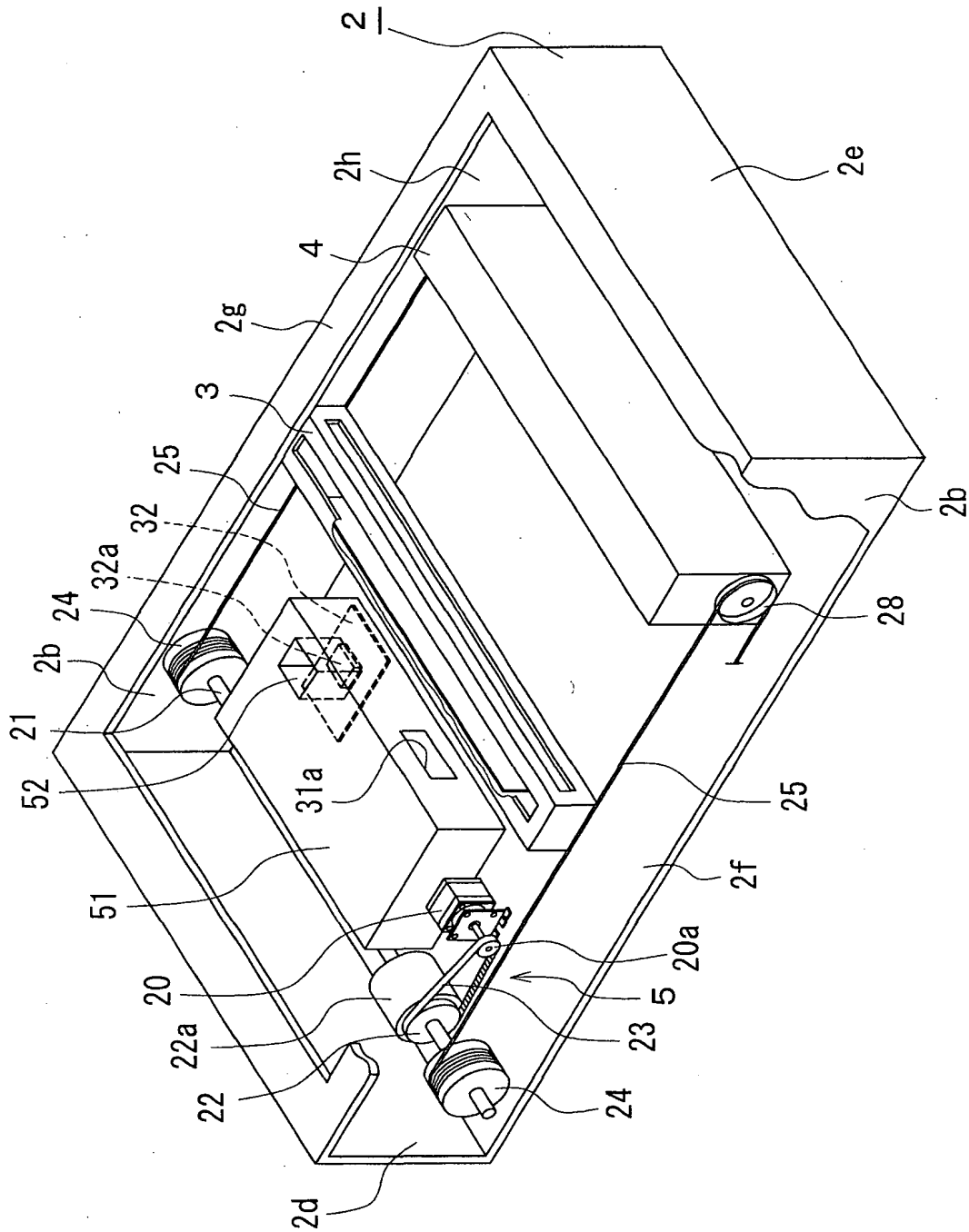


Fig. 15

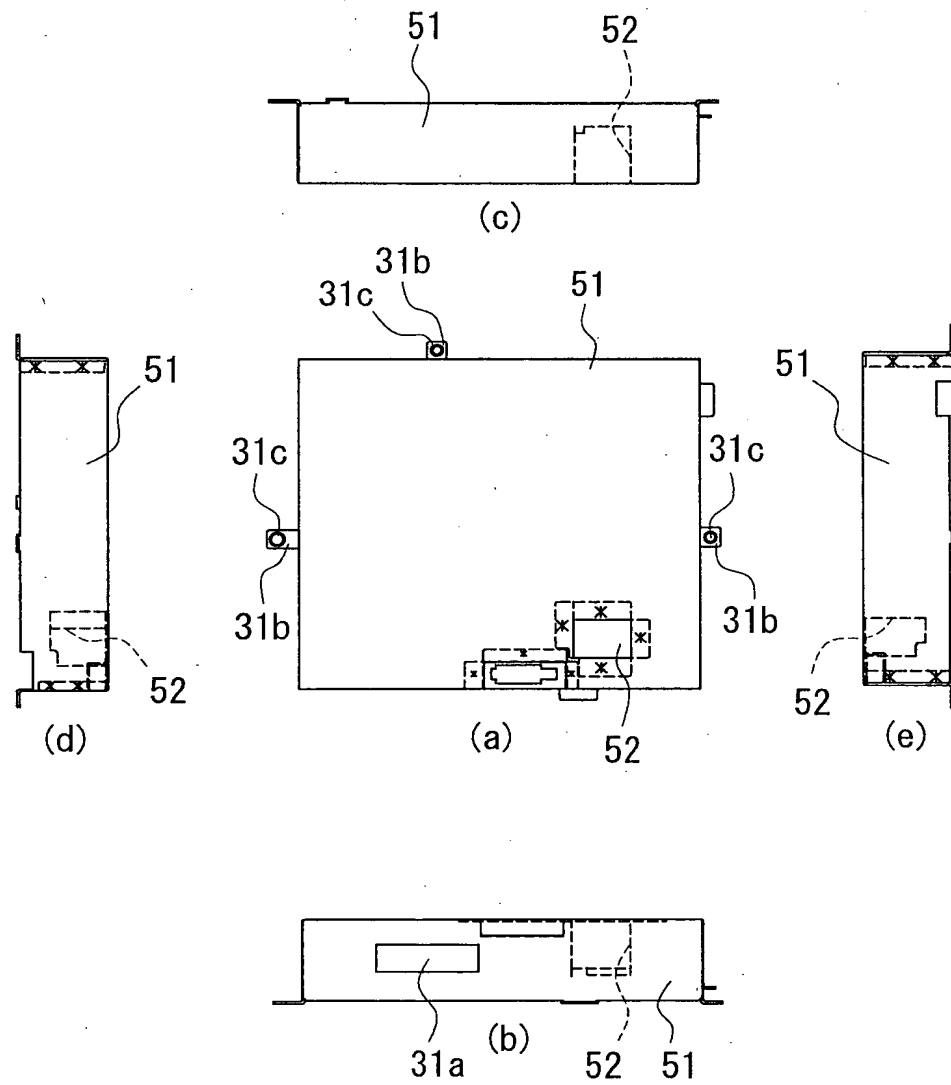


Fig. 16

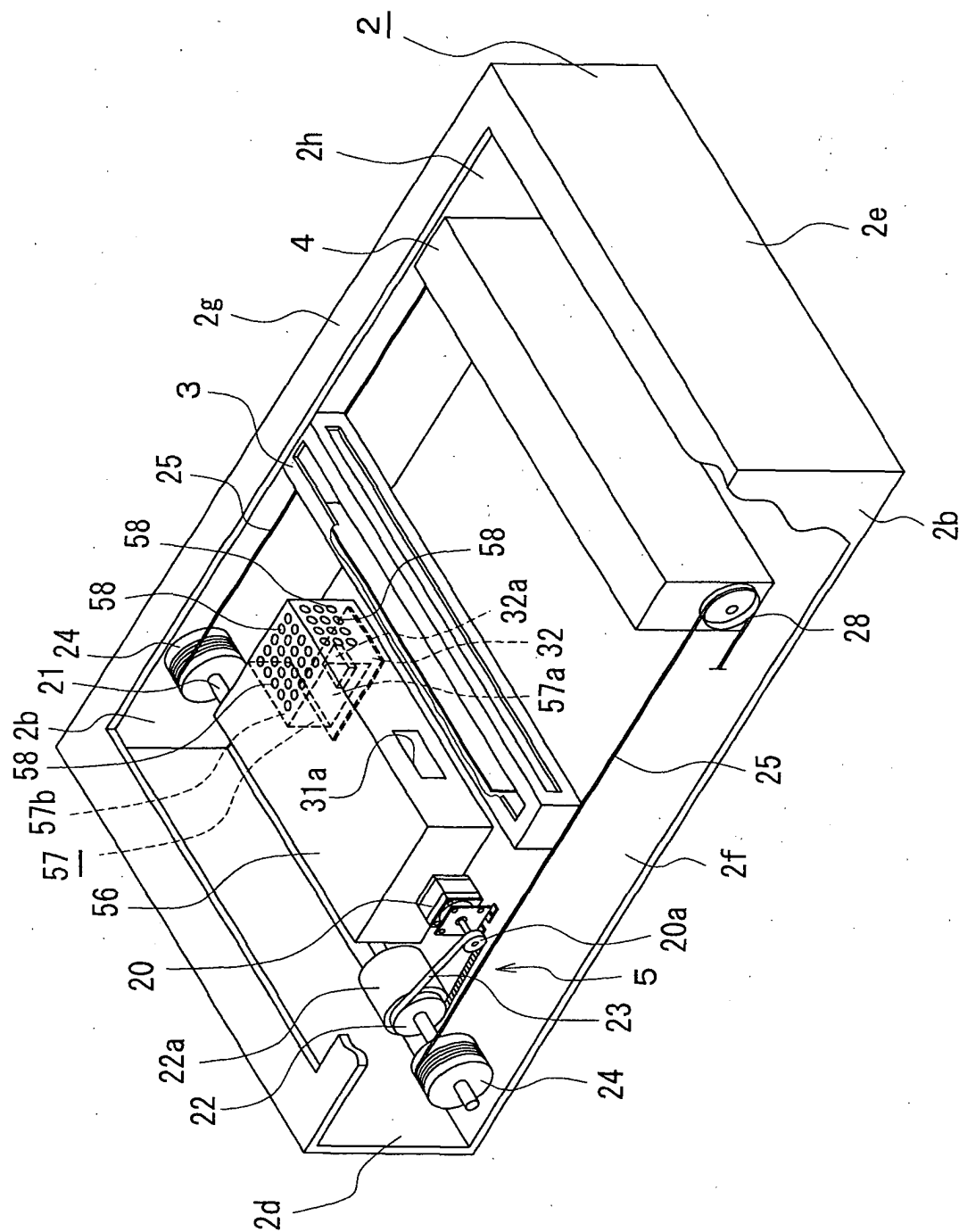


Fig. 17

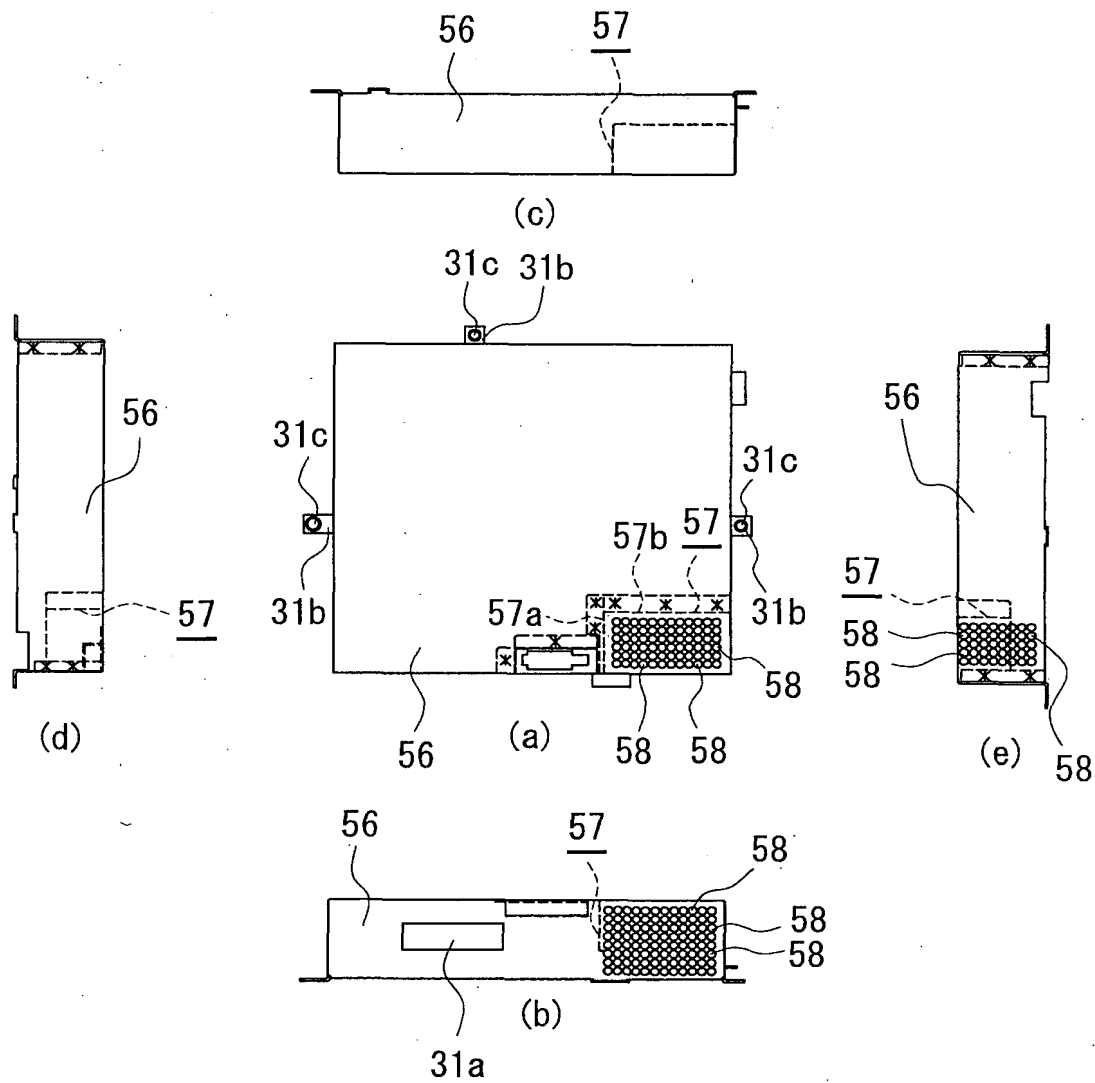


Fig. 18

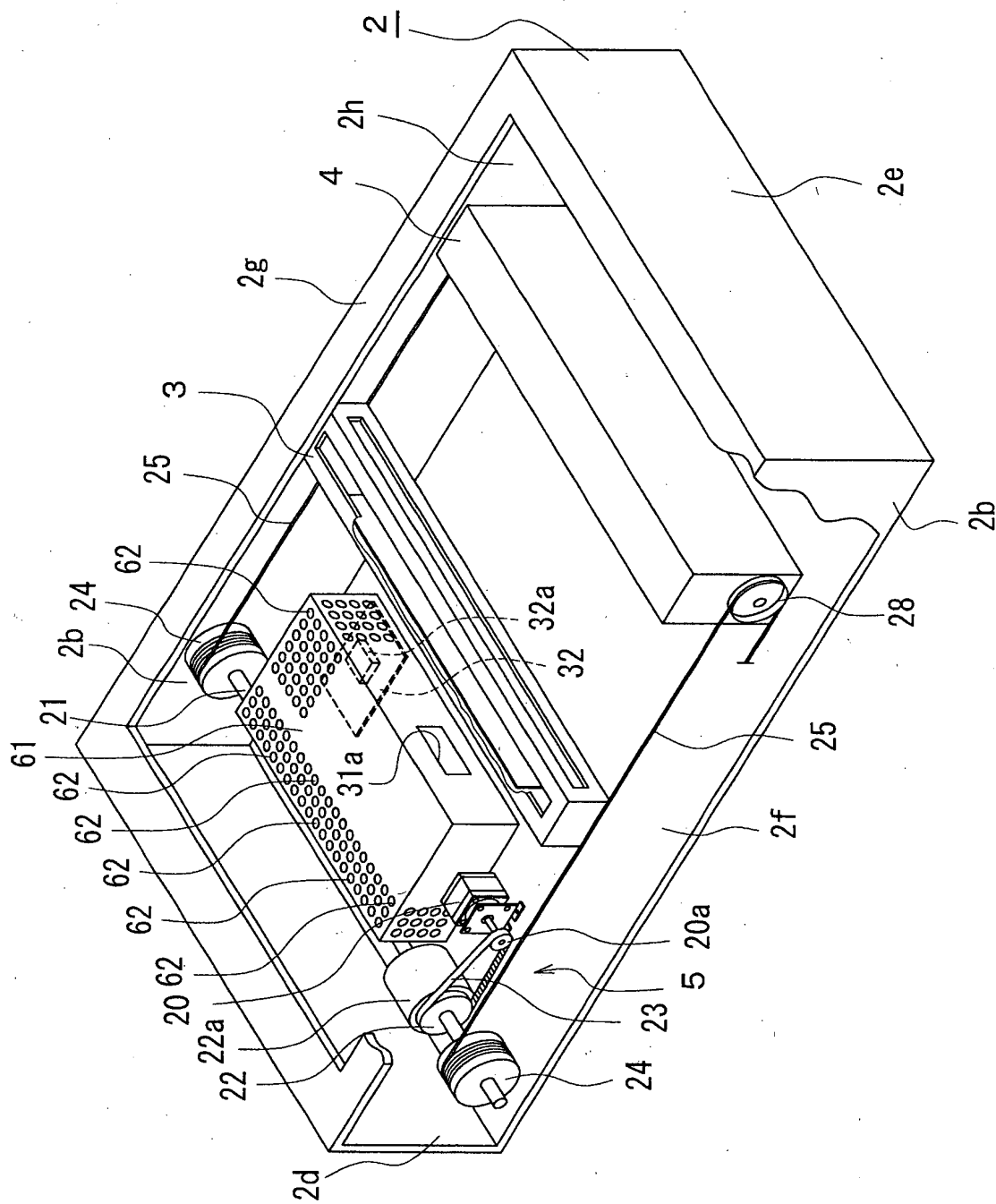


Fig. 19

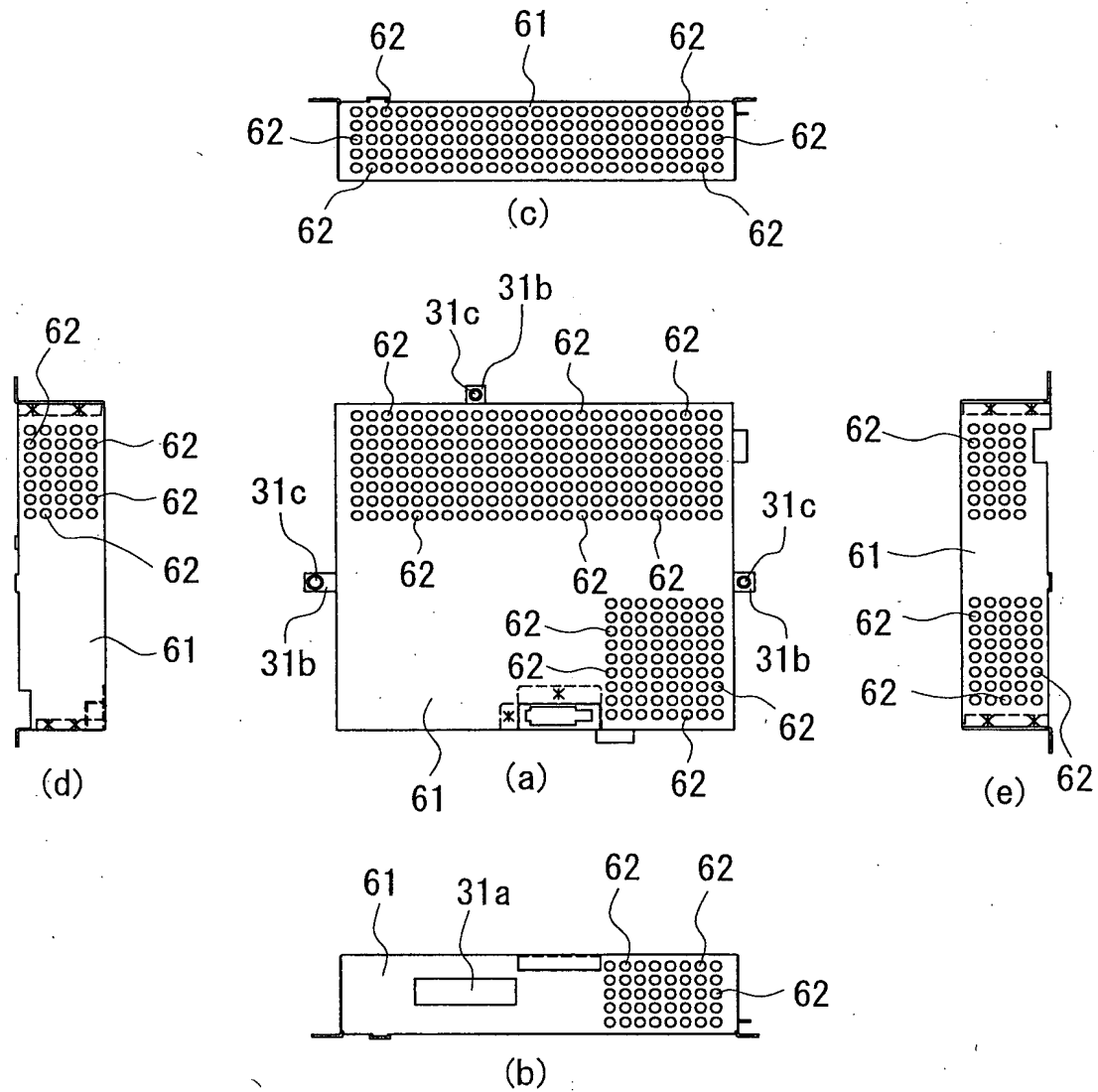
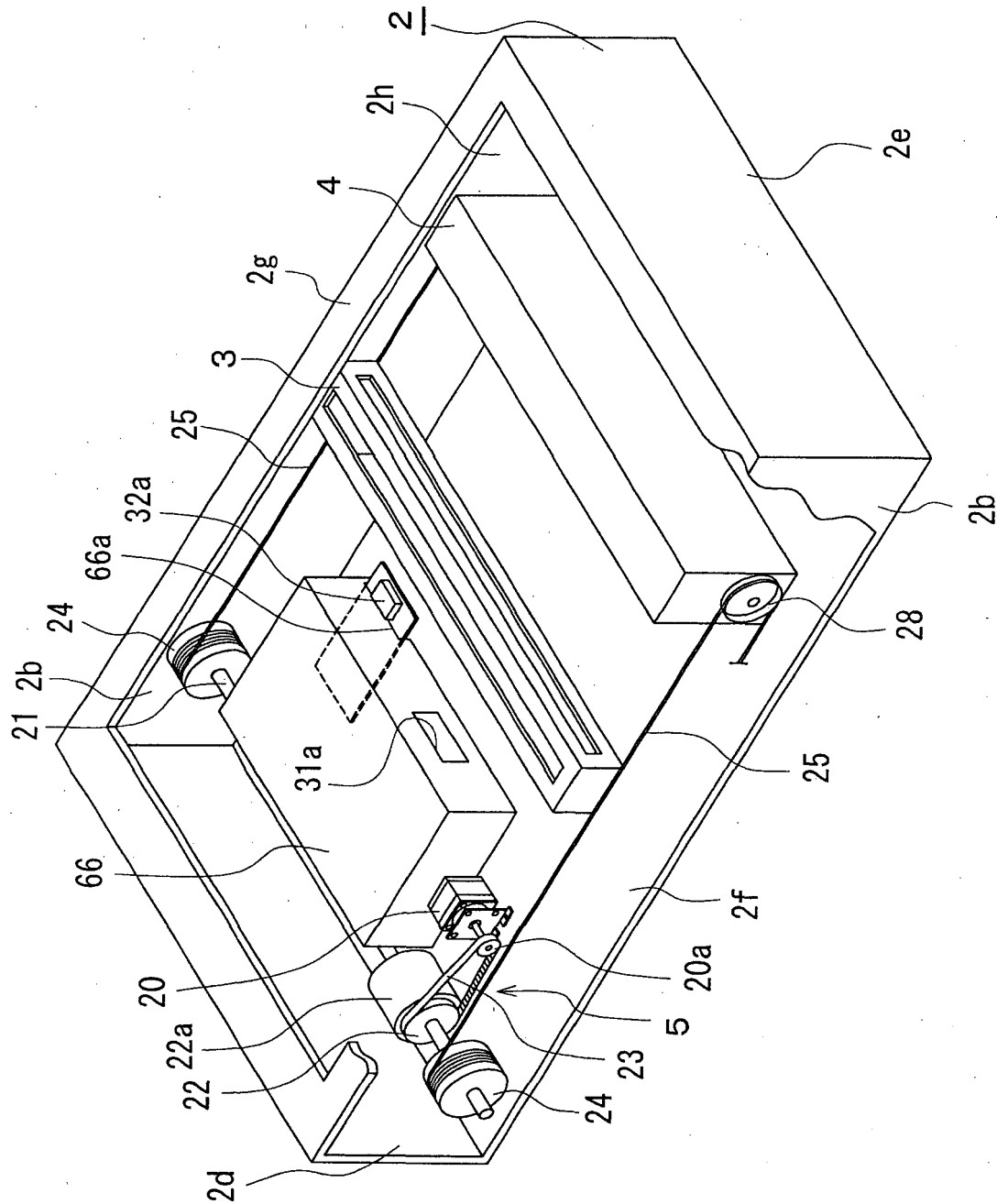


Fig. 20



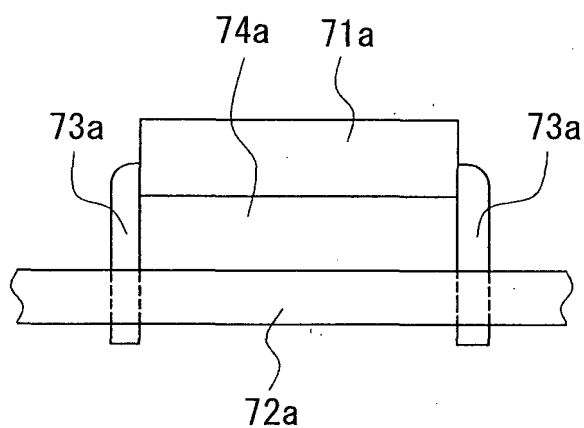


Fig. 22

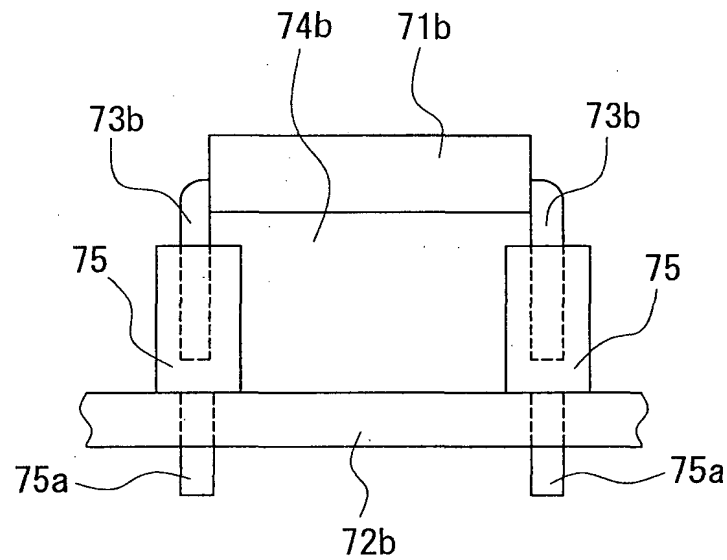


Fig. 23

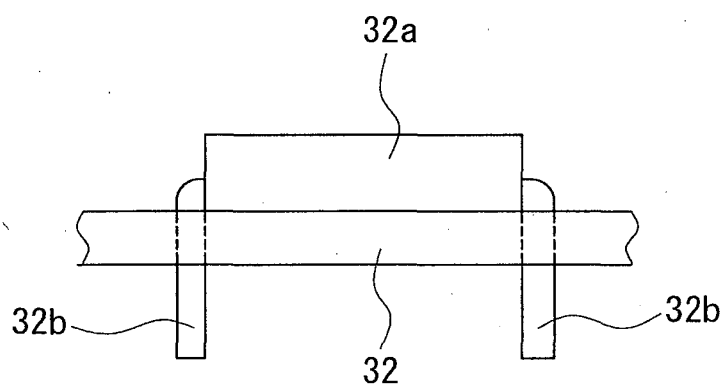


Fig. 24

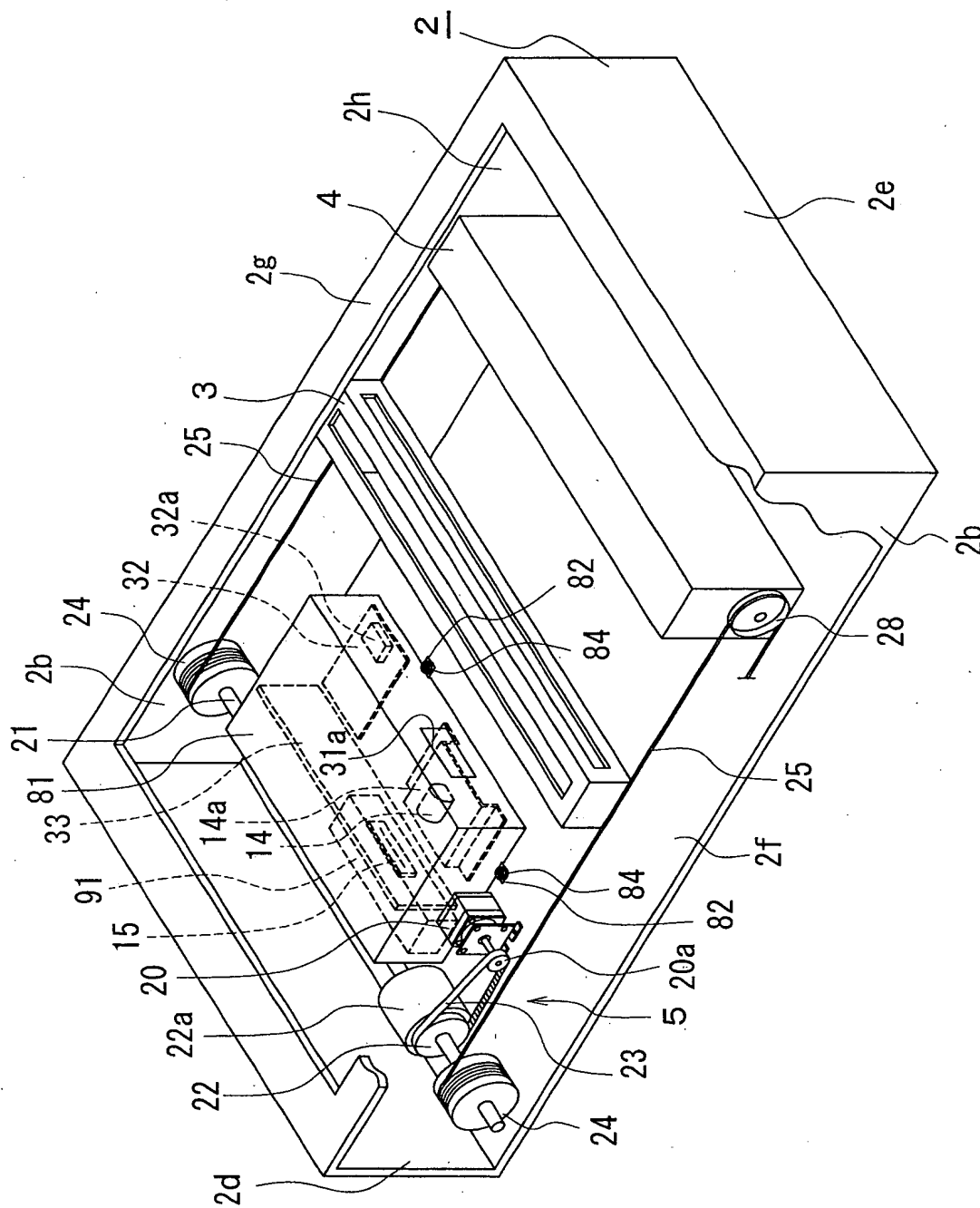


Fig. 25

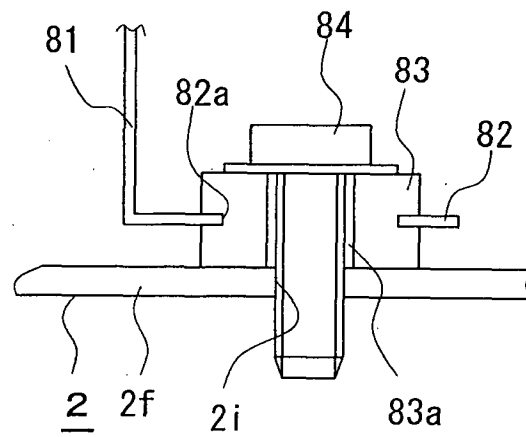


Fig. 26

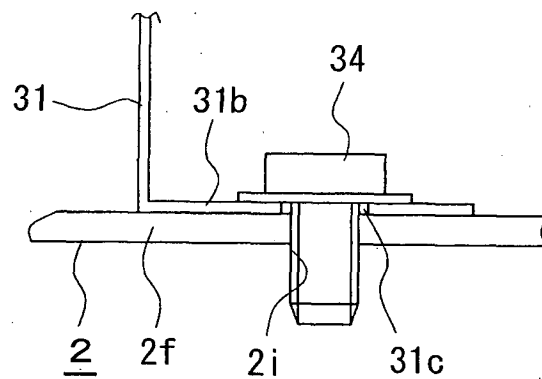


Fig. 27

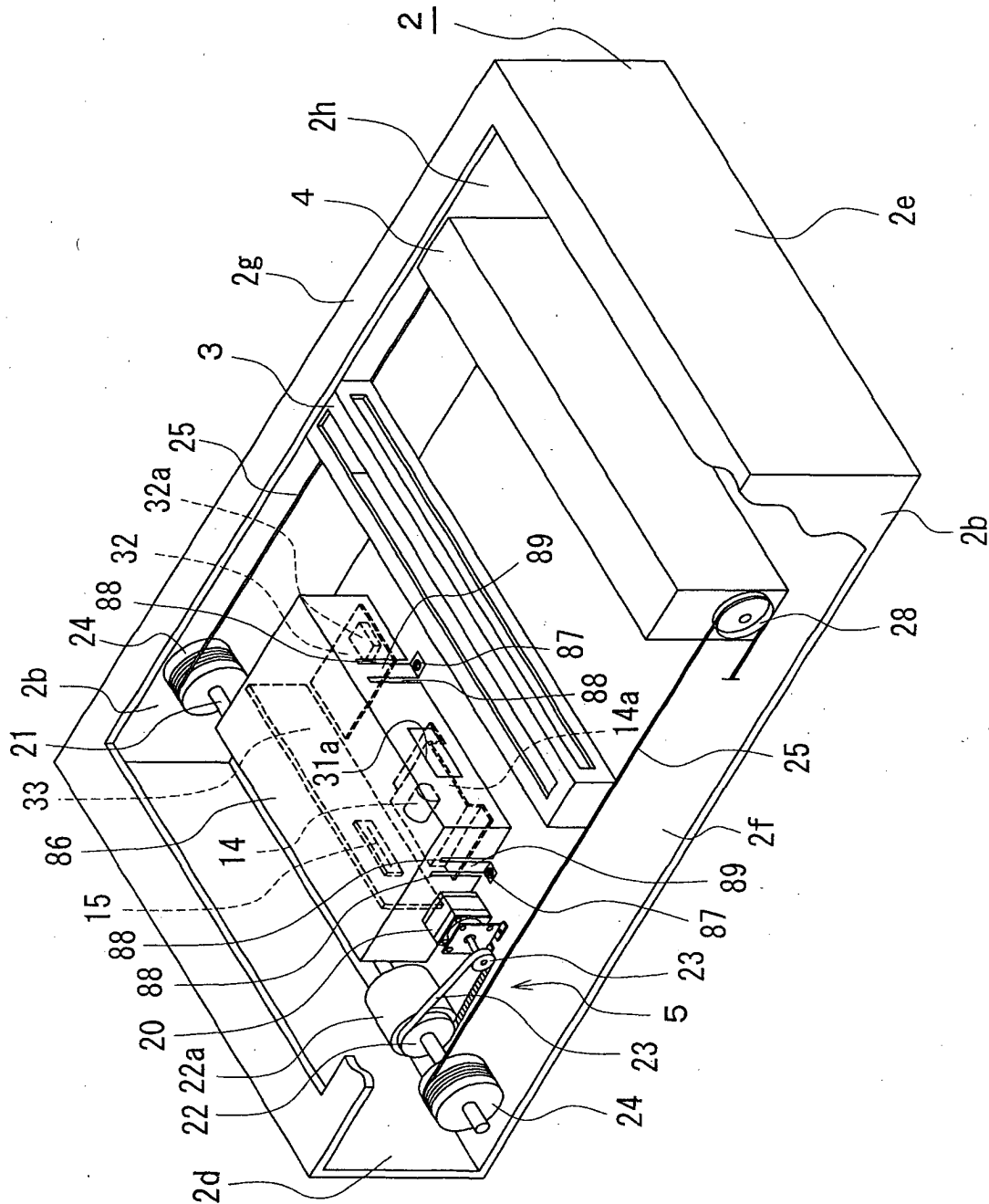


Fig. 28